

## SEQUENCE LISTING

&lt;110&gt; BASF Aktiengesellschaft

&lt;120&gt; Preparing 3-methylamino-1-(thien-2-yl)propan-1-ol

&lt;130&gt; M/44142

&lt;160&gt; 6

&lt;170&gt; PatentIn version 3.1

&lt;210&gt; 1

&lt;211&gt; 47

&lt;212&gt; PRT

&lt;213&gt; Lactobacillus brevis

&lt;400&gt; 1

Met	Ser	Asn	Arg	Leu	Asp	Gly	Lys	Val	Ala	Ile	Val	Thr	Gly	Gly	Thr
1				5					10					15	

Leu	Gly	Ile	Gly	Leu	Ala	Ile	Ala	Thr	Lys	Phe	Val	Glu	Glu	Gly	Ala
			20					25					30		

Lys	Val	Met	Ile	Thr	Gly	Arg	His	Ser	Asp	Val	Gly	Glu	Lys	Ala
		35					40					45		

&lt;210&gt; 2

&lt;211&gt; 18

&lt;212&gt; PRT

&lt;213&gt; Candida magnoliae

&lt;400&gt; 2

Ser Asn Ala Leu Val Thr Gly Gly Ser Arg Val Ile Gly Ala Gly Gly  
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Phe Ile

<210> 3

<211> 756

<212> DNA

<213> Lactobacillus brevis

<220>

<221> CDS

<222> (1)..(756)

<223>

<400> 3

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 Met Ser Asn Arg Leu Asp Gly Lys Val Ala Ile Val Thr Gly Gly Thr  
 1 5 10 15

ttg ggt atc ggt tta gct atc gcc acg aag ttc gtt gaa gaa ggg gct 96  
 Leu Gly Ile Gly Leu Ala Ile Ala Thr Lys Phe Val Glu Glu Gly Ala  
 20 25 30

aag gtc atg att acc ggc cgg cac agc gat gtt ggt gaa aaa gca gct 144  
 Lys Val Met Ile Thr Gly Arg His Ser Asp Val Gly Glu Lys Ala Ala  
 35 40 45

aag agt gtc ggc act cct gat cag att caa ttt ttc caa cat gat tct 192  
 Lys Ser Val Gly Thr Pro Asp Gln Ile Gln Phe Phe Gln His Asp Ser  
 50 55 60

tcc gat gaa gac ggc tgg acg aaa tta ttc gat gca acg gaa aaa gcc 240  
 Ser Asp Glu Asp Gly Trp Thr Lys Leu Phe Asp Ala Thr Glu Lys Ala  
 65 70 75 80

ttt ggc cca gtt tct aca tta gtt aat aac gct ggg atc gcg gtt aac 288  
 Phe Gly Pro Val Ser Thr Leu Val Asn Asn Ala Gly Ile Ala Val Asn  
 85 90 95

aag agt gtc gaa gaa acc acg act gct gaa tgg cgt aaa cta tta gcc 336  
 Lys Ser Val Glu Glu Thr Thr Thr Ala Glu Trp Arg Lys Leu Leu Ala  
 100 105 110

## 3

gtc aac ctt gat ggt gtc ttc ttc ggt acc cga tta ggg att caa cgg 384  
 Val Asn Leu Asp Gly Val Phe Phe Gly Thr Arg Leu Gly Ile Gln Arg  
 115 120 125  
 atg aag aac aaa ggc tta ggg gct tcc atc atc aac atg tct tcg atc 432  
 Met Lys Asn Lys Gly Leu Gly Ala Ser Ile Ile Asn Met Ser Ser Ile  
 130 135 140  
 gaa ggc ttt gtg ggt gat cct agc tta ggg gct tac aac gca tct aaa 480  
 Glu Gly Phe Val Gly Asp Pro Ser Leu Gly Ala Tyr Asn Ala Ser Lys  
 145 150 155 160  
 ggg gcc gta cgg att atg tcc aag tca gct gcc tta gat tgt gcc cta 528  
 Gly Ala Val Arg Ile Met Ser Lys Ser Ala Ala Leu Asp Cys Ala Leu  
 165 170 175  
 aag gac tac gat gtt cgg gta aac act gtt cac cct ggc tac atc aag 576  
 Lys Asp Tyr Asp Val Arg Val Asn Thr Val His Pro Gly Tyr Ile Lys  
 180 185 190  
 aca cca ttg gtt gat gac cta cca ggg gcc gaa gaa gcg atg tca caa 624  
 Thr Pro Leu Val Asp Asp Leu Pro Gly Ala Glu Glu Ala Met Ser Gln  
 195 200 205  
 cgg acc aag acg cca atg ggc cat atc ggt gaa cct aac gat att gcc 672  
 Arg Thr Lys Thr Pro Met Gly His Ile Gly Glu Pro Asn Asp Ile Ala  
 210 215 220  
 tac atc tgt gtt tac ttg gct tct aac gaa tct aaa ttt gca acg ggt 720  
 Tyr Ile Cys Val Tyr Leu Ala Ser Asn Glu Ser Lys Phe Ala Thr Gly  
 225 230 235 240  
 tct gaa ttt gta gtt gac ggt ggc tac act gct caa 756  
 Ser Glu Phe Val Val Asp Gly Gly Tyr Thr Ala Gln  
 245 250

&lt;210&gt; 4

&lt;211&gt; 252

&lt;212&gt; PRT

&lt;213&gt; Lactobacillus brevis

&lt;400&gt; 4

Met Ser Asn Arg Leu Asp Gly Lys Val Ala Ile Val Thr Gly Gly Thr  
 1 5 10 15

Leu Gly Ile Gly Leu Ala Ile Ala Thr Lys Phe Val Glu Glu Gly Ala  
 20 25 30

Lys Val Met Ile Thr Gly Arg His Ser Asp Val Gly Glu Lys Ala Ala

35

40

45

Lys Ser Val Gly Thr Pro Asp Gln Ile Gln Phe Phe Gln His Asp Ser  
 50 55 60

Ser Asp Glu Asp Gly Trp Thr Lys Leu Phe Asp Ala Thr Glu Lys Ala  
 65 70 75 80

Phe Gly Pro Val Ser Thr Leu Val Asn Asn Ala Gly Ile Ala Val Asn  
 85 90 95

Lys Ser Val Glu Glu Thr Thr Thr Ala Glu Trp Arg Lys Leu Leu Ala  
 100 105 110

Val Asn Leu Asp Gly Val Phe Phe Gly Thr Arg Leu Gly Ile Gln Arg  
 115 120 125

Met Lys Asn Lys Gly Leu Gly Ala Ser Ile Ile Asn Met Ser Ser Ile  
 130 135 140

Glu Gly Phe Val Gly Asp Pro Ser Leu Gly Ala Tyr Asn Ala Ser Lys  
 145 150 155 160

Gly Ala Val Arg Ile Met Ser Lys Ser Ala Ala Leu Asp Cys Ala Leu  
 165 170 175

Lys Asp Tyr Asp Val Arg Val Asn Thr Val His Pro Gly Tyr Ile Lys  
 180 185 190

Thr Pro Leu Val Asp Asp Leu Pro Gly Ala Glu Glu Ala Met Ser Gln  
 195 200 205

Arg Thr Lys Thr Pro Met Gly His Ile Gly Glu Pro Asn Asp Ile Ala  
 210 215 220

Tyr Ile Cys Val Tyr Leu Ala Ser Asn Glu Ser Lys Phe Ala Thr Gly  
 225 230 235 240

Ser Glu Phe Val Val Asp Gly Gly Tyr Thr Ala Gln  
 245 250

&lt;210&gt; 5

&lt;211&gt; 472

&lt;212&gt; DNA

&lt;213&gt; Candida magnoliae

&lt;220&gt;

&lt;221&gt; CDS

&lt;222&gt; (1)..(471)

&lt;223&gt;

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<400> 5
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att aag ctc gcc gag gag ggc tac agc gtc acg att gcg tct cgc ggc      96
Ile Lys Leu Ala Glu Glu Gly Tyr Ser Val Thr Ile Ala Ser Arg Gly
          20          25          30

ctt aag cag ctc gag gct gtg aag gcc aaa cta ccc att gtg aag cag      144
Leu Lys Gln Leu Glu Ala Val Lys Ala Lys Leu Pro Ile Val Lys Gln
          35          40          45

gga cag gtt cac cac gtg tgg cag ctt gat ctc agt gat gtc gac gct      192
Gly Gln Val His His Val Trp Gln Leu Asp Leu Ser Asp Val Asp Ala
          50          55          60

gcg gcc gcc ttc aaa ggg tcg ccg cta cct gcc agc cgc tac gac gtg      240
Ala Ala Ala Phe Lys Gly Ser Pro Leu Pro Ala Ser Arg Tyr Asp Val
65          70          75          80

ctc gtc agc aat gct ggc gtg gcc cag ttt agc ccg ttc atc gag cat      288
Leu Val Ser Asn Ala Gly Val Ala Gln Phe Ser Pro Phe Ile Glu His
          85          90          95

gcg aag cag gac tgg tcg cag atg ctt gcc atc aat ctg gcg gca ccc      336
Ala Lys Gln Asp Trp Ser Gln Met Leu Ala Ile Asn Leu Ala Ala Pro
          100          105          110

att gcg ctg gcc cag aca ttt gct aag gcc att ggc gac aag ccg cgc      384
Ile Ala Leu Ala Gln Thr Phe Ala Lys Ala Ile Gly Asp Lys Pro Arg
          115          120          125

aac aca ccg gcc cac att gtg ttt gtc tcg tcg aac gtc tcg ttg cga      432
Asn Thr Pro Ala His Ile Val Phe Val Ser Ser Asn Val Ser Leu Arg
          130          135          140

ggc ttc ccg aac atc ggc gtc aac tcc atc acc ccc ggc a      472
Gly Phe Pro Asn Ile Gly Val Asn Ser Ile Thr Pro Gly
145          150          155

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&lt;210&gt; 6

&lt;211&gt; 157

&lt;212&gt; PRT

&lt;213&gt; Candida magnoliae

&lt;400&gt; 6

Asn Ala Leu Val Thr Gly Gly Ser Arg Gly Ile Gly Glu Ala Thr Ala  
1 5 10 15

Ile Lys Leu Ala Glu Glu Gly Tyr Ser Val Thr Ile Ala Ser Arg Gly  
20 25 30

Leu Lys Gln Leu Glu Ala Val Lys Ala Lys Leu Pro Ile Val Lys Gln  
35 40 45

Gly Gln Val His His Val Trp Gln Leu Asp Leu Ser Asp Val Asp Ala  
50 55 60

Ala Ala Ala Phe Lys Gly Ser Pro Leu Pro Ala Ser Arg Tyr Asp Val  
65 70 75 80

Leu Val Ser Asn Ala Gly Val Ala Gln Phe Ser Pro Phe Ile Glu His  
85 90 95

Ala Lys Gln Asp Trp Ser Gln Met Leu Ala Ile Asn Leu Ala Ala Pro  
100 105 110

Ile Ala Leu Ala Gln Thr Phe Ala Lys Ala Ile Gly Asp Lys Pro Arg  
115 120 125

Asn Thr Pro Ala His Ile Val Phe Val Ser Ser Asn Val Ser Leu Arg  
130 135 140

Gly Phe Pro Asn Ile Gly Val Asn Ser Ile Thr Pro Gly  
145 150 155